

Having thus described the invention, we hereby claim:

1. A color calibration alarm apparatus useful in an image rendering device, the apparatus comprising:
  - a sensor device operative to detect color of a test image to obtain at least one measured color value;
  - 5 a memory device having stored therein at least one ideal color value;
  - a comparing device operative to compare the at least one measured color value to the at least one ideal color value;
  - a latching device operative to selectively latch an output of the comparing device; and,
  - 10 a display device operative to display the latched output.
2. The apparatus as set forth in claim 1 wherein the sensor device comprises a plurality of sensors, each corresponding to a separate color.
3. The apparatus as set forth in claim 1 wherein the memory device comprises a plurality of set point memory modules, each module having stored therein one of a separate ideal color value and a range of the separate ideal color values.
4. The apparatus as set forth in claim 1 wherein the comparing device comprises a plurality of comparators, outputs of which are input to combining logic.
- 5 The apparatus as set forth in claim 4 wherein the combining logic is and OR gate.
6. The apparatus as set forth in claim 1 wherein the latching device latches the output of the comparing device when a measure signal is present.
7. The apparatus as set forth in claim 6 wherein the measure signal is generated based on detection of a test pattern.
8. The apparatus as set forth in claim 7 further comprising a pattern detection logic module having sensor connected thereto which are operative to detect the test pattern.

9. The apparatus as set forth in claim 1 wherein the at least one ideal color value is selectively captured.

10. The apparatus as set forth in claim 1 further comprising a sensor operative to selectively capture the at least one ideal color value based on a capture signal generated by the image rendering device after the image rendering device is calibrated.

11. A method for use in an image rendering device for rendering color images, the method comprising steps of:

- capturing ideal color;
- selectively rendering test images;
- 5 generating a measure signal;
- detecting colors of at least one test color patch in the test image to obtain measured color values;
- comparing the measured color values to the ideal color to obtain comparison results;
- 10 combining the comparison results into an overall measurement;
- latching the overall measurement if the measure signal is present; and,
- displaying the latched result.

12. The method as set forth in claim 11 wherein the test color patches are rendered on break pages between jobs.

13. The method as set forth in claim 11 further comprising the generating of a test pattern comprising one of a bar code and a predetermined sequence of colors.

14. The method as set forth in claim 11 wherein the ideal color values are obtained by:

- calibrating the device; and
- measuring the values of colors produced by the calibrated device.

15. The method as set forth in claim 11 wherein the test images are composed of a detectable test patterns and test color patches.

16. The method as set forth in claim 11 wherein the generation of the measure signal is based on the identification of a test image.

17. The method as set forth in claim 16 wherein the identification of a test image is carried out by detecting a test pattern contained within the said test image.

18. The method as set forth in claim 17 wherein the color test patch to be measured is contained within the test image and is associated with the detected test pattern.

19. A system for use in an image rendering device for rendering color images, the system comprising:

- means for capturing ideal color;
- means for selectively rendering test images;
- 5 means for generating a measure signal;
- means for detecting colors of at least one test color patch in the test image to obtain measured color values;
- means for comparing the measured color values to the ideal color to obtain comparison results;
- 10 means for combining the comparison results into an overall measurement;
- means for latching the overall measurement if the measure signal is present; and,
- means for displaying the latched result.

20. The system as set forth in claim 19 wherein the test images are composed of a detectable test patterns and test color patches.